ASME International

FIRST

2001 - 10th Anniversary Competition

Mission of F.I.R.S.T.

FIRST, which stands for "For Inspiration and Recognition of Science and Technology", is a program designed to spark the interest of high school students in the fields of science and engineering. Every year, a "game" with a complete set of rules and a playing field is conceived. Teams are required to design and construct a robot, within the set specifications and rules, that can compete in the game. Each year the game, the field, and the rules are different. The only constants from year to year are that the focus is on involving high school students in the design, construction, and decision making, and that teams only have six weeks from the announcement of the game until all the robots must be completed.

The Game 2001 - Teamwork

This year's game revolved around the idea of teamwork, both on and off the field. Unlike previous years, where teams and their robots had competed against each other on the field, this year the teams on the field had to work together to score as many points in two minutes as possible. Their "alliance" of four robots would then relinquish the field to another alliance. The teams with the highest, total individual score at the end of the qualifying rounds then picked the other teams they wanted in their alliance in the final rounds. Due to this method of advancement in the competition, there was an added element of marketing or salesman-ship to impress other teams with your design.

In addition to having to work as a team to design, construct a robot and then compete, teams were called to the stage in groups of sixteen. Every two minutes, an alliance of four was called out from the group of sixteen - so each alliance only had two minutes to coordinate among themselves, creating a strategy to capitalize on the strengths of each robot.

The Playing Field with balls, ramp, and a goal.

Recognizing and Teaching Science and Technology

Rules and Scoring

Each team learned of this year's game on January 6th, and then had six weeks from that point in which to design and construct their robot. At the end of those six weeks, the robot had to be packaged and shipped to the FIRST holding site.

Though this year's game had some rather complex rules, the basic idea was for the four robots to work together to score as many points possible in two minutes. Small, black balls inside a goal tower were each 1 point. Large, colored balls on top of a goal were 10 points. Every robot in the end zone at the end of time was 10 points. If your robot's light color matched that of the large ball, your team got an extra 10% of the alliance's score. If a disabled robot was on the stretcher in the end zone, it was 20 points. Balancing one goal on the bridge doubled the score; balancing two quadrupled the score. Finishing early and stopping the clock also multiplied the score by up to a factor of 3.